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From: Enck, Judith
Sent: Mon 11/28/2016 3:58:44 PM
Subject: Fwd: Morning Clips

Hi Dore and Kate and Lenny. See first article below. I think Lisa very recently requested an aes coal ash update as I am in Puerto Rico this week. Plz be sure to include info on the enforcement actions EPA has taken on this aes coal ash issue. Tx. Also, do we have info about the allegation below that the landfill is stockpiling the ash in mounds at the site ? Tx

Sent from my iPhone

Begin forwarded message:

From: "Shore, Berry" <Shore.Berry@epa.gov>
Date: November 28, 2016 at 8:20:22 AM EST
To: "R2 EPA Region 2 (EPA Staff)" <R2_EPA_Region_2_EPA_Staff@epa.gov>
Subject: Morning Clips

Coal ash contamination in Puerto Rico

Ruth Santiago

25 November 2016

democraciaAbierta (Open Democracy)

Dozens of residents of Peñuelas, Puerto Rico and their supporters were arrested today for protests against the trucking of AES Puerto Rico, L.P. coal ash waste to the Peñuelas Valley Landfill. Among those arrested is Puerto Rico Senator, Maria de Lourdes Santiago. The arrests started on Monday, November 21, 2016 when 21 people were detained. Today, 41 more people were arrested and more interventions are expected. Community members cite a municipal ordinance which prohibits use of coal ash in the town of Peñuelas as the basis for their opposition to the coal ash. Approximately 43 other municipalities in Puerto Rico have prohibited the use of coal ash as fill material at construction sites and in their landfills. The AES coal ash has been used as daily cover for garbage or just left in mounds exposed to the breeze and rain which has led to fugitive dust and water contamination. A recent Puerto Rico Court of Appeals decision modified a previous lower court decision upholding the municipal ordinance. In a separate suit by AES

against the municipalities of Humacao and Peñuelas, the United States District Court for the District of Puerto Rico determined that the municipal ordinances did not violate federal law. AES has incurred in multiple violations of illegal contaminated water discharges and has been fined by EPA on at least two occasions as recently as last year.

Community members cite a municipal ordinance which prohibits use of coal ash in the town of Peñuelas as the basis for their opposition to the coal ash.

Since 2014, communities throughout southern and southeastern Puerto Rico have been vehemently protesting the fugitive dust and other significant negative impacts of coal ash generated by AES Puerto Rico, L.P. Dozens of truckloads per day of AES coal combustion residuals that AES refers to as "Agremax" have been transported through neighborhoods in Humacao and Penuelas, Puerto Rico, exposing nearby residents to inhalation of fugitive dust from the coal ash. An Environmental Protection Agency (EPA) study using the Leaching Environmental Assessment Framework ("LEAF") shows that the AES coal ash contains high levels of aluminum, arsenic, boron, cadmium, chloride, chromium, fluoride, lead, lithium, molybdenum, selenium, sulfate, and thallium that can leach from the coal combustion residuals and contaminate the local environment. A.C. Garrabrants, D.S. Kosson, R. DeLapp and Peter Kariher, Leaching Behavior of "AGREMAX" Collected from a Coal-Fired Power Plant in Puerto Rico, Epa-600/r-12/XXX (November 2012).

Approximately 43 other municipalities in Puerto Rico have prohibited the use of coal ash as fill material at construction sites and in their landfills.

EPA has found that harmful exposure to arsenic and PM 2.5 can result when coal ash is uncontrolled. (EPA Risk Assessment 2014, pp. 3-6 to 3-10). EPA also released a technical support document with the publication of its final rule entitled "Damage Cases: Fugitive Dust Impacts" which concludes:

"Evidence of fugitive dust impact throughout the life cycle management of coal combustion residuals (CCR) has been available even prior to the publication of the proposed CCR rule in June 2010. Since the proposed rule was issued, a great deal of additional evidence has surfaced. This evidence, combined with the results of air

quality risk screening conducted by EPA that demonstrated human health risk associated with CCR fugitive dust was instrumental in EPA's decision to regulate air quality issues associated with CCR management."

The report specifically refers to the AES plant in Guayama, Puerto Rico highlighting the human health risk from both arsenic exposure and elevated radioactivity of the ash. (pp. 3-5). The EPA Final Rule on CCRs indicates as follows:

During the development of this final rule, EPA obtained information on a comparable situation in which large quantities of unencapsulated CCR were placed on the land in a manner that presented significant concerns. The AES coal-fired power plant in Puerto Rico lacked capacity to dispose of their CCR on-site, and off-site landfills in Puerto Rico were prohibited from accepting CCR. In lieu of transporting their CCR off of the island for disposal, AES created an aggregate ("AGREMAX") with the CCR generated at their facility, and used the aggregate as fill in housing developments and in road projects. Over two million tons of this material was used between 2004 and 2012. Currently, there is insufficient information to determine whether groundwater has been contaminated as a result of this practice, and thus, EPA cannot classify this as either a proven or potential "damage case." Nevertheless, the available facts illustrate several of the significant concerns associated with unencapsulated uses. Specifically, the AGREMAX was applied without appropriate engineering controls and in volumes that far exceeded the amounts necessary for the engineering use of the materials. Inspections of some of the sites where the material had been placed showed use in residential areas, and to environmentally vulnerable areas, including areas close to wetlands and surface waters and over shallow, sole-source drinking water aquifers. In addition, some sites appeared to have been abandoned. Consistent with the proposed rule, EPA does not consider the practices described in this section to be beneficial use, but rather waste management that would be subject to the requirements of the final rule. pg. 21328-9.

In 2011, ABC World News covered the case of AES coal ash contamination in Bokoshe, OK, where coal ash from an AES plant was dumped in an uncontrolled landfill, resulting in the community's dangerous exposure to fugitive dust. The Bokoshe site is also included in

AES coal ash is also associated with contamination in the Dominican Republic and various cases of groundwater pollution. On April 4, 2016, Bloomberg News reported that AES Corporation settled a lawsuit relating to damages from coal ash which

allegedly caused birth defects in children in the Dominican Republic.

In the absence of a market or beneficial use for coal ash generated by AES, the Puerto Rico Environmental Quality Board (EQB) issued Resolution R-14-27-20 revoking previous resolutions that exempted the AES coal ash from regulation and at the request of the EPA requiring the disposal of the AES coal ash in a landfill in compliance with the subtitle D of the Resource Recovery and Conservation Act (RCRA). The EQB also authorized the use of coal ash as daily cover for landfill waste in contrast to other jurisdictions such as Ohio that prohibit the use of coal ash as daily cover because of the fugitive dust contamination. EQB required AES to submit a plan to manage the accumulation of coal ash (200 feet long by 200 feet wide by 50 feet high) on the plant premises. The residents of the municipalities of Arroyo, Patillas, Maunabo, Yabucoa and Humacao have testified at Puerto Rico Senate hearings about the large number of truckloads of AES coal ash and the fugitive dust in their communities on their way to the landfill located in Humacao. Once there, the AES coal ash is used as daily cover and stockpiled, generating large amounts of fugitive dust which is what is apparently planned in Peñuelas.

AES coal ash is also associated with contamination in the Dominican Republic and various cases of groundwater pollution.

In the initial permits and power purchase agreement for the AES plant in Guayama, Puerto Rico, AES committed to exporting its coal combustion residuals outside Puerto Rico if it could not find a beneficial use for its coal ash waste on the island. Although the Executive Director of the Puerto Rico Electric Power Authority, Javier Quintana acceded to an amendment to the power purchase agreement which allows for disposal of the AES coal ash in Puerto Rico, the Puerto Rico Planning Board siting consultation approval for the AES plant requires that the coal ash be either marketed for beneficial use or exported from Puerto Rico. The Planning Board Resolution provides that if a market for beneficial use is not developed, AES must export the coal ash. Planning Board Resolution Number 94-71-1099-JPU, pp. 16 and 51.

AES generates over 300,000 tons of coal ash per year and over two million tons of coal ash were used as fill material at construction sites above the South Coast Aquifer in southeastern Puerto Rico. AES coal ash was deposited within a few meters of public water wells, irrigation canals, streams, farms, wetlands, beaches and other sensitive areas. The Aquifer is the sole source of potable water for approximately 53,000 residents of Salinas and Santa Isabel and many more

thousands of people in the municipalities of Peñuelas, Ponce, Juana Diaz, Guayama and Arroyo, Puerto Rico. In some places, contractors to which AES provided free delivery of Agremax coal ash excavated huge holes that were filled with CCRs below the Aquifer water-table. All these communities have now come together against AES' egregious conduct.

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Upside in Puerto Rico Municipal Bonds: Puerto Rico's new governor is intent on restructuring the island's debt.

November 26, 2016

Barron's

Preview

The recent election of a new governor in Puerto Rico, and the formation of a powerful federal financial control board this summer, have resulted in some optimism about a bondholder-friendly restructuring of much of the island's \$70 billion of debt.

The situation is still unsettled, but the new governor, Ricardo Rosselló, is viewed on Wall Street as a serious leader who wants to put the island on a stronger financial footing, bolster a weak economy, and work out a reasonable agreement with bondholders. Rosselló contrasts with the more combative outgoing governor, Alejandro García Padilla, who clashed with bondholder groups and then opted to default on \$1 billion of debt-service payments on July 1.

Rosselló's election came after midyear, when President Barack Obama signed the Puerto Rico Oversight, Management, and Economic Stability Act, which created a seven-member control board with broad fiscal and debt-restructuring authority.

The benchmark Puerto Rico 8% general-obligation bond due in 2035 rallied after the Rosselló win, to about 72 cents on the dollar from 69 cents, but has since slipped back to about 69 cents. The market for Puerto Rico's senior sales-tax revenue bonds, known by their Spanish acronym Cofina, has been stronger, with long-term senior debt trading up to the low \$70s from the high \$60s in the summer, as Puerto Rico has continued to make payments to that debt.

Barron's was among the first to warn about Puerto Rico's growing financial troubles in a cover story more than three years ago ("Troubling Winds," Aug. 26, 2013).

Key future developments will be a new fiscal proposal from the incoming governor and recommendations from a task force about steps the U.S. government can take to ease Puerto Rico's financial burden.

Things should heat up in early 2017 because a stay on bondholder lawsuits ends in February—with a potential extension to around May 1. This means that a bond restructuring plan probably needs to be in place by then. There is apt to be considerable wrangling among different bondholder groups, and there is overall risk given Puerto Rico's fiscal, economic, and pension problems.

Against that backdrop, the general-obligation bonds, trading at less than 70 cents on the dollar, look like the best way to bet on a bondholder-friendly deal that could give GO holders a package worth 85 cents to 90 cents on the dollar.

Drought Watch declared in Delaware Basin: Call to conserve water prompted by 'persistently dry conditions'

Published Nov 26, 2016 at 12:38 pm (Updated Nov 26, 2016)

Photo: Map showing reservoirs in the Delaware River Basin. The three reservoirs triggering the drought watch -- the Cannonsville, Pepacton, and Neversink -- are now at only 40 percent capacity.

MONTAGUE, N.J. — A call for conservation in the Delaware River basin comes as water levels in three reservoirs at the headwaters of the Delaware River have plunged to about 40 percent of capacity.

At a special meeting on Nov. 23, the Delaware River Basin Commission declared a drought watch in response to "persistently dry conditions." It has issued a special permit for coordination among reservoirs, out-of-basin diversions, and river flow objectives.

Below-normal precipitation throughout most of the basin has affected streams, groundwater, reservoirs, and soil moisture, the commission says.

Under the special permit, the transition from one drought stage to another — from "watch" to "warning" to "drought" and back again to "normal" — will be based on storage in the three Catskill reservoirs — Cannonsville, Pepacton, and Neversink in New York State — which supply New York City with about half of its water. The reservoirs also support a minimum flow target in the Delaware River at Montague, N.J., as established by the U.S. Supreme Court Decree of 1954. Parties to the decree include Delaware, New Jersey, Pennsylvania, New York State, and New York City.

Protecting taps from salty water

The river flow objective at Montague and a second flow objective at Trenton, N.J. will also be reduced, depending on the location of the "salt line" in the estuary. Freshwater is needed to keep "salty" or "brackish" water out of drinking water in Philadelphia and New Jersey.

"As of Nov. 20, the salt front is 19 river miles upstream from its normal location for the month despite significant freshwater reservoir releases," said Steve Tambini, executive director of the Delaware River Basin Commission (DRBC). "The current salt front location is still 21 miles downstream of water supply intakes in Pennsylvania and New Jersey."

Under the “drought watch,” some reservoirs may be asked either to store or release water. Releases may be required from Merrill Creek Reservoir in Warren County, N.J., built by a consortium of electric utilities to replace losses to evaporation caused by power generation.

Out-of-basin diversions to New York City and portions of New Jersey will be reduced. A reserve “bank” of water built up over the past year will be available, allowing New Jersey to minimize the effects of possible reductions.

The DRBC is urging all water users to curb water use and maximize water efficiency wherever possible.

“Over 15 million people rely on waters of the Delaware River Basin,” said Tambini.

Water conservation tips

Here are some things you can do to conserve until the rains return:

Take shorter showers and save 5 to 7 gallons of water per minute;

Fill the tub halfway and save 10 to 15 gallons;

Install water-saving toilets, shower heads and faucet aerators;

Don’t run the water while shaving, washing your hands, or brushing your teeth;

Don’t use the toilet as a wastebasket;

Position your downspouts so rain water runs onto the lawn or into the garden, not down the driveway;

When running tap water to get it hot, divert the initial cool water into a pot or bucket, then use it to water the plants;

Check your water meter or bill to see how much water you are using. Each of us should be able to get by comfortably on 50 gallons per person per day;

Repair leaky faucets.

Remember that awareness is the first step in conservation.

Consider these facts and hopefully you will think twice about how you use water, especially during dry times:

Up to 90 percent of the water used to sprinkle lawns on a hot sunny day can be lost to the atmosphere through evaporation. This is water that is not returned to the hydrologic cycle. Soaker hoses or trickle systems, on the other hand, reduce the amount of water used by 20 to 50 percent;

A garden hose discharges up to six-and-a-half gallons of water per minute under standard household water pressure;

Approximately two-thirds of residential interior water use is for toilet flushing and bathing;

Old vintage toilets use between 4 and 6 gallons of water per flush. Low consumption models use 1.6 gallons;

Hot water leaks not only are a waste of water, but are a waste of the energy used to heat that water;

A dishwasher uses between 8 and 12 gallons of water per load. Make sure it's full before turning it on;

A top-loading clothes washer uses between 40 and 55 gallons of water per load. Front-loading models use roughly half that amount. Again, only run full loads.

Water conservation is a smart investment not only for now but for the future.

Source: Delaware River Basin Commission: nj.gov/drbc

For more information, visit drbc.net.

Without more rain, N.J. water bills could jump

By James M. O'Neill.

EST November 26, 2016

The state might declare a drought emergency in the spring, giving the DEP power to fine residents for overusing water.

If North Jersey fails to receive abundant rain this winter, residents could get hit with bigger water bills next spring.

The region has been under a drought warning since mid-October, and Governor Christie could declare a drought emergency in coming months. State rules give the administration sweeping powers under such a scenario to move water among utilities, impose fines on residents who consume too much water and even shut down nonessential industrial sites.

It would be New Jersey's first water emergency since 2002-03. Fines were only imposed once — in the second phase of a drought emergency in 1985, and only in communities drastically affected, said Bob Considine, a state Department of Environmental Protection spokesman.

NORTH JERSEY

Drought reveals life before the reservoir

Recent rain has helped raise the levels of local reservoirs a bit, but they are still below the historical average for this time of year, and there's no clear signal about rainfall in coming months.

"The good news is there's no suggestion we're going to have a dry winter, but there's also no indication it's going to be a wet one," said David Robinson, the state's climatologist and a Rutgers University professor. "We're still in a serious situation. It's above worrisome."

Related: New Jersey can reroute water to meet greatest need

“Clearly if the reservoirs are still running below average into March and April, it seems likely we’d be leaning toward a drought emergency, because people start consuming more water then,” Robinson said. “An emergency can put the brakes on the amount of water consumed.”

The governor would declare an emergency, then have Bob Martin, the DEP commissioner, implement the plans, said Robert Kecskes, now retired from the DEP’s water supply division. Martin would name a drought coordinator.

Under state rules, during a water emergency’s second phase, residents could be charged their normal rate for the first 50 gallons of water they used each day, and a \$5 surcharge for each additional 7.5 gallons used. If the emergency continues, the drought coordinator can increase that fine to \$10 for each additional 7.5 gallons.

For comparison, the current average monthly bill in Bergen County for residential customers of Suez Water New Jersey Inc. is \$50 for 6,732 gallons consumed — or \$5 for 673 gallons.

Nonresidential users could face a surcharge on all water they use — their normal rate plus an additional 33 percent. If the drought continued, the surcharge could be increased to 50 percent.

The surcharges would go into a “water emergency fund” for the DEP to promote water conservation, pay for emergency projects, and cover state and utility expenses related to the drought.

“We hope to avoid that situation through continued and increased conservation, water management and, of course, more precipitation,” Considine said.

At a League of Municipalities event last week, Martin told towns' officials to drive home the need for water conservation.

Related: N.J. declares drought warning for 14 northern counties

If a drought emergency reaches Stage 3, the commissioner can order industrial customers to curtail their use. At Stage 4, the commissioner could order some industrial sites to close.

One of the most serious droughts in recent history took place between 1980 and 1982. That brought rationing to North Jersey. Robinson remembers constantly checking his water meter. "I learned quickly how challenging it is to live on 50 gallons a day," he said.

"The state was desperate — they had 25 days' worth of water left in reservoirs," Kecskes said. "They were worried there would not be enough water pressure to fight fires and were talking about letting fires burn themselves out."

Nowhere to build

Exacerbating drought worries is that North Jersey is crisscrossed with old water pipes, and some systems lose as much as 25 percent of treated water through leaky pipes before it ever gets to residents.

Related: Drinking water going to waste

In addition, there is no room to expand the region's reservoir system.

Suez, a for-profit water utility that serves 800,000 people in Bergen and Hudson counties, operates three reservoirs on the Hackensack River in Bergen County — the Oradell, Woodcliff Lake and Lake Tappan. Even removing lots of sediment from the reservoirs would not add much capacity, making such a project impractical, said Steven Goudsmith, a Suez spokesman.

“In the Passaic and Hackensack, there’s no place left for a new reservoir,” said Daniel Van Abs, a Rutgers University professor who used to oversee statewide water resource management at the DEP. “The next source for water supply for North Jersey would be the Raritan River system” in Central Jersey.

Three projects have been identified that could add to the Raritan supply, and the extra water could be shifted north to ease stress on North Jersey’s supply.

One option is called the Confluence Pumping Station, which would take water from the Raritan River and pump it into the Round Valley Reservoir, in Hunterdon County.

Another option would be a new reservoir at the Kingston Quarry in Somerset County, owned by Trap Rock Industries. The company would hand the quarry over to the state once it was fully quarried.

A third option is the Six Mile Run Reservoir proposal, which would be built on a tributary of the Millstone River, also in Somerset County.

The water pumped from the Raritan system would not actually get to North Jersey reservoirs. “It is a wheeling process, substituting water from one place to another,” Van Abs said. The water would go to Newark, and that would allow Newark to release its own reservoir water to other communities in North Jersey.

Newark has five reservoirs in North Jersey that serve Newark residents, including the Charlotteburg, Canistear, Oak Ridge and Clinton reservoirs in Passaic and Sussex counties, all connected by the Pequannock River. The Newark system also draws from the Wanaque Reservoir, operated by the North Jersey District Water Supply Commission. The Wanaque supplies water to 3.5 million people.

“We’ll have to keep an eye on this,” Robinson said. “Droughts are an insidious thing.”

Drought emergency?

If Governor Christie were to declare a drought emergency, the state would gain sweeping powers, including:

- ▶ Moving water among utilities
- ▶ Imposing fines on residents for overuse
- ▶ Shutting down nonessential industrial sites

Climate change could swamp coastal real estate

11/24/2016

Daily Gazette, The

News Service

MIAMI -- Real estate agents looking to sell coastal properties usually focus on how close the home is to the water's edge. But buyers are increasingly asking instead

how far back it is from the waterline. How many feet above sea level? Is it fortified against storm surges? Does it have emergency power and sump pumps?

Rising sea levels are changing the way people think about waterfront real estate. Though demand remains strong and developers continue to build near the water in many coastal cities, homeowners across the nation are slowly growing wary of buying property in areas most vulnerable to the effects of climate change.

A warming planet has already forced a number of industries to account for potential future costs of a changed climate. The real estate industry, particularly along the vulnerable coastlines, is slowly awakening to the need to factor in the risks of catastrophic damage from climate change, including that wrought by rising seas and storm-driven flooding.

But many economists say that this reckoning needs to happen much faster and that homebuyers urgently need to be better informed. Some analysts say the economic impact of a collapse in the waterfront property market could surpass that of the bursting dot-com and real estate bubbles of 2000 and 2008.

The fallout would be felt by property owners, developers, real estate lenders and the financial institutions that bundle and resell mortgages.

Over the past five years, home sales in flood-prone areas grew about 25 percent less quickly than in counties that do not typically flood, according to Attom Data Solutions, the parent company of RealtyTrac. Many coastal residents are rethinking their investments and heading for safer ground.

"I don't see how this town is going to defeat the water," said Brent Dixon, a resident of Miami Beach who plans to move north and away from the coast in anticipation of worsening king tides, the highest predicted tide of the year. "The water always wins."

These concerns have taken on a new urgency since the presidential election of Donald Trump, who has long been a skeptic of global warming.

Trump's recent selection of Myron Ebell to lead his Environmental Protection Agency transition team intensified these worries in Florida and among many climate scientists. Ebell has helped lead the charge against the scientific consensus that global warming exists and is caused by people.

State lawmakers in Massachusetts and New Jersey are pushing to impose new rules on real estate agents and others, obligating them to disclose climate-related damage like previous flooding.

Banks and insurers need to protect their collateral and investors more by improving their methods for estimating climate-change risks and creating more standardized rules for reporting them publicly, economists warn.

In April, Sean Beckett, the chief economist for Freddie Mac, the government-backed mortgage giant, issued a dire prediction. It is only a matter of time, he wrote, before sea level rise and storm surges become so unbearable along the coast that people will leave, ditching their mortgages and potentially triggering another housing meltdown -- except this time, it would be unlikely that these housing prices would ever recover.

"Some residents will cash out early and suffer minimal losses," he wrote. "Others will not be so lucky."

Florida has six of the 10 U.S. urban centers most vulnerable to storm surge, according to a 2016 report from CoreLogic, a real estate data firm. Southeast Florida experiences about 10 tidal floods per year now. That number is likely to be around 240 floods per year by 2045, according to climate researchers.

In the past year, home sales have increased 2.6 percent nationally, but have

dropped about 7.6 percent in high-risk flood zones in Miami-Dade County, according to housing data.

Forty percent of Americans live and work in coastal areas, and those who can afford it are protecting their investments by building private bulkheads and lifting their homes onto stilts. But skeptics question the logic of upgrading individual properties if the surrounding areas do not keep pace and flooding or the rise in sea levels swamps nearby roads.

For many homebuyers and owners, the cost of flood insurance is a growing worry. As premiums rise, property values fall, a trend already hurting home prices in places like Atlantic City, New Jersey; Norfolk, Virginia; and St. Petersburg, Florida, according to local real estate agents.

Norfolk is a city surrounded by water. In 2014, the Federal Emergency Management Agency expanded the area designated as highest risk for a flood in an update to regional maps, requiring thousands of new homeowners to have flood insurance.

Rising water and sinking land could push the relative sea level up in some parts by 6 feet by the end of the century, the U.S. Army Corps of Engineers estimates. Flood insurance in moderate- to low-risk areas nationally costs more than \$200 a year, according to the National Flood Insurance Program, but for properties in flood zones, those rates could rise by as much as several thousand dollars.

Within a year, Virginia lawmakers passed a real estate disclosure law that the industry hailed as a major step forward.

While the law encourages homebuyers to exert due diligence in investigating the risk of living in a flood hazard area, it also states that the seller of a home is not obligated to disclose whether the home is in a zone that FEMA regards as high risk.

Some city officials said the law did not go far enough. "It's a nondisclosure disclosure," Meg Pittenger, an environmental manager for the city of Portsmouth, Virginia, told a reporter for The Virginian-Pilot. She added that it should have required sellers or agents to inform prospective buyers whether a property lies in a flood zone.

To make matters worse, the National Flood Insurance Program is more than \$20 billion in debt. After several major coastal storms, Congress tried to fix the program, passing a law in 2012 requiring that insurance premiums be recalculated to reflect risk. Coastal homeowners rebelled, arguing that the legislation made insurance unaffordable, and in 2014 Congress repealed parts of the law.

George Kasimos, a real estate expert in Toms River, New Jersey, said homeowners had good reason to react. "A homeowner may be approved for a \$300,000 mortgage with a \$3,000 a year flood insurance premium," he said, but the same person's loan application would most likely be rejected with a \$10,000 flood insurance premium.

Despite the slowdown in home sales, many flood-prone cities are still growing. Skyscrapers and new apartment buildings are going up all around Fort Lauderdale. The local chamber of commerce says the city expects to add about 50,000 people in the next 15 years and currently lacks housing to accommodate them. In Miami, much of the new construction consists of luxury condos aimed at a large number of cash buyers from Russia and Latin America.

Nationally, median home prices in areas at high risk for flooding are still 4.4 percent below what they were 10 years ago, while home prices in low-risk areas are up 29.7 percent over the same period, according to the housing data.

Chris Bergh, the South Florida conservation director at the Nature Conservancy, said he was worried because his house on Big Pine Key is just over a half-mile from the beach and only about 5 feet above sea level.

"In planning for my 7-year-old child's future," he said, "I can't count on him inheriting a valuable piece of property on Big Pine Key."

Indian Court Bans Fireworks Sales in Delhi to Fight Smog

By NIDA NAJAR and ELLEN BARRY

NOV. 25, 2016

NY Times

NEW DELHI — India's Supreme Court on Friday banned the sale of firecrackers in the capital region, reflecting a growing sense of urgency after a thick smog engulfed Delhi for 10 days early this month, trapping its population of 20 million in dangerous concentrations of polluted air.

“There's an immediate ban” on fireworks sales across the National Capital Region until further orders are given, said Gopal Sankaranarayanan, a lawyer who filed the lead petition in the matter and announced the court's ruling. “It's something we're very happy about.”

The Supreme Court also gave India's Central Pollution Control Board three months to file a report on the “composition and content” of fireworks, after which it would contemplate a national ban on their manufacture, Mr. Sankaranarayanan said.

The ban is an important step. For generations in India, fireworks have been set off to mark Hindu festivals, and their manufacture is a vast industry. Last year, the court refused to issue a blanket ban on fireworks, arguing that it would infringe on citizens' rights.

This year, however, the hearing came on the heels of an episode that rattled the capital. After acrid smoke from fireworks set off late last month for Diwali, the Hindu festival of lights, merged with emissions from other sources, levels of the most dangerous particles of air pollution rose to more than 16 times the level that the Indian government considers safe.

City officials took the unprecedented step of shutting down more than 1,800 public primary schools and advised parents to keep their children inside until the crisis passed. Pervasive alarm over health risks, especially to children, seemed to have spurred the court into action, said Mr. Sankaranarayanan, who had filed the case in the name of his 19-month-old son.

“People for the first time, when they stepped out of their house, realized that they could not see more than 20 or 30 feet in front of them,” he said by telephone earlier this month. “It was really, really scary. It gave us a kind of snapshot into a dystopian world into which we would easily descend.”

Air quality in New Delhi has been declining for years, but until recently few residents worried about the problem. In 2014, the World Health Organization released findings that ranked New Delhi’s air as the worst in the world, with its average concentration of dangerous pollutants almost three times that of Beijing.

Shortly after, the United States Embassy in New Delhi began making its air pollution data public, and the city’s elites began investing in air purifiers and filtration masks. Early this year, the city government restricted the use of private cars in New Delhi to alternate days for two two-week periods.

A. Asaithambi, the president of the Tamil Nadu Fireworks and Amorfes Manufacturers’ Association, said he had not heard about the order on Friday afternoon. But in an interview this month, he defended the industry.

“You can’t blame fireworks as a major part of this pollution,” he said, citing weather conditions and smoke from brick kilns as contributors.

But the decision to suspend existing licenses on fireworks sales and to stop issuing new ones is the first major crackdown on pollutants in many years, since a series of orders requiring public buses in the capital to switch from diesel to compressed natural gas, said Mr. Sankaranarayanan, one of the founders of Care for Air, a nonprofit organization based in New Delhi.

“For the last 18 years, we have hoped that the government would step in and do something,” he said

Trump Has Options for Undoing Obama’s Climate Legacy

By HENRY FOUNTAIN and ERICA GOODE

NOV. 25, 2016

NY Times

President Obama’s effort to reduce carbon emissions by coal-burning power plants could be undone when President-elect Donald J. Trump takes office in January.
Credit Luke Sharrett/Bloomberg

President-elect Donald J. Trump has vowed to dismantle many of the signature policies put in place by the Obama administration to fight the effects of climate change.

During the campaign, he threatened, among other things, to kill the Clean Power Plan, a set of rules to reduce emissions from power plants. He has also taken aim at new regulations to limit methane leaks from wells and pipelines. And members of his transition team have suggested that he may reduce or eliminate basic climate research at NASA or other agencies.

If he follows through, most of these moves will be opposed by environmental groups, by Democrats in Congress and perhaps even by some Republicans. But Mr. Trump will have several tools to begin nullifying the Obama climate agenda.

One of them is the little-known Office of Information and Regulatory Affairs, a small outpost within the executive branch that has, since the Clinton administration, been the last stop for many regulations before they go into effect.

Lawyers in the office pore over thousands of pages of federal regulations daily and pride themselves on meticulously reviewing the fine print, even if that takes months or years.

Under the control of the new administration, the office could slow President Obama's latest regulatory initiatives by repeatedly sending them back for additional work.

"It has been a brake on agency regulation throughout its lifetime," said Jody Freeman, a professor at Harvard Law School and an expert on environmental regulation. "Some presidents have used it as more of a brake than others."

Much remains to be learned about the president-elect's environmental policy goals, and some of his views appear to have shifted.

Mr. Trump, who has claimed that global warming is a hoax, said this week in an interview with The New York Times that he now saw "some connectivity" between humans and climate change, and that he would "keep an open mind" about whether to pull out of the Paris climate accord, as he threatened to do during the campaign.

Yet at the same time, some key positions on his transition team are occupied by people with a long history of rejecting the overwhelming scientific consensus on climate change.

Other than climate change, there are numerous environmental issues that he has never talked about and that he might be content to leave untouched. And once agency heads are in place, they may choose very different tactics from those discussed during Mr. Trump's campaign or by his advisers. Two people considered to be in the running to head the Environmental Protection Agency — Jeffrey R. Holmstead, an energy lobbyist, and Robert E. Grady, a venture capitalist — also have experience in the complex machinations of the federal government.

“Every new administration comes in with an overestimation of what it can accomplish and how quickly it can accomplish it,” said Kevin Ewing, a partner at Bracewell, a Washington law firm.

If Mr. Trump does decide to withdraw from the Paris agreement, he will find it difficult: The accord went into force this month. He would also encounter tremendous obstacles were he to try to dismantle the E.P.A., another campaign threat.

But he may have an easier time abandoning other climate initiatives, including a United Nations-backed program to reduce the environmental impact of international air travel beginning in 2020. The United States has only informally committed to participate in the program, and the new administration could refuse to make that commitment legally binding.

One of the most powerful methods to hobble Mr. Obama’s domestic environmental initiatives would be to block financing for the E.P.A. and other agencies.

“Congress can always pass an appropriations rider that for one year prevents any funding for the implementation or enforcement of a particular regulation,” said Scott H. Segal, a partner and director of the policy resolution group at Bracewell. Riders can be passed year after year, effectively neutering a specific regulation, Mr. Segal said.

Such an approach can be “stealthier” than trying to undo the regulation itself, Professor Freeman said. “You don’t have to repeal these statutes,” she said. “You just have to make it impossible to implement them.”

Another opening for Mr. Trump lies in regulations that were proposed by the Obama administration but are still technically “in motion.” In theory, he could pull back or block these rules.

But a departing administration can also use a regulation's "in motion" status to its own advantage. Last week, the Obama administration banned drilling in the Alaskan Arctic under the Interior Department's proposed five-year plan regulating oil and gas leases. Republicans could kill the plan. But to do so would mean crafting a replacement, a process that could take two years or more.

Last week, the White House unveiled a sweeping plan to try to stiffen environmental regulations before Mr. Obama leaves office. Environmental groups can be expected to fight any efforts to undo them.

"Donald Trump can't just snap his fingers and change climate policy," said David Goldston, director of government affairs at the Natural Resources Defense Council. "We have ways to thwart him in Congress and the courts that we could employ."

The issue can be overwhelming. The science is complicated. We get it. This is your cheat sheet.

The approach the Trump administration takes will depend in part on the status of specific rules and regulations.

Some environmental policies — like "guidance" issued by the White House earlier this year, instructing agencies to consider the effects of climate change when conducting environmental reviews — do not have the force of law that agency regulations do, and can be abolished with a pen stroke. Undoing a regulation is more complicated. Some of the E.P.A.'s new methane rules are completed, for example, but other rules, both at the E.P.A. and at the Interior Department, are not and can simply be abandoned.

If a rule is final, the options are different. The new administration cannot just rescind these regulations, but it can order agencies to revisit them. That reopens the rule-making process, however, including the opportunity for public comment. Any revisions or replacement regulations must have a basis in facts and a cost-benefit analysis, not politics or ideology.

There are other potential options for specific regulations. The Clean Power Plan, for instance, is completed but not yet in effect because of a judicial stay imposed while legal action against it plays out in a federal appeals court in Washington. If there is no ruling by Inauguration Day, Jan. 20, Mr. Trump's Justice Department can ask the court to put the case in abeyance, effectively extending the stay indefinitely.

"In some respects, this is in the Department of Justice's hands," said Tom Lorenzen, a lawyer at Crowell & Moring who argued against the plan before the appeals court. "They will make a determination of how they want to proceed."

Mr. Segal said the Republican Congress might also be able to overturn some recently completed regulations under a law that gives both houses up to 60 legislative days to reject them. That law, the Congressional Review Act, usually comes into play only when the party of the incoming president is different from the departing one's and the same party controls both houses, as is the case now.

William K. Reilly, a Republican who was E.P.A. administrator under President George Bush, said Mr. Trump needed to be careful about whom he picked for the top jobs in each department.

He cited the Reagan administration's experience with Anne Gorsuch, who incurred the wrath of politicians of both parties when, as administrator of the E.P.A., she cut the agency's budget by more than 20 percent, gutting research and regulatory enforcement. She resigned under fire in 1983 in the midst of accusations that she had mismanaged a hazardous waste cleanup program.

"The administration got badly burned by discounting the sensitivities and public support for what the E.P.A. protects us from," Mr. Reilly said. "It's a public health agency above all."

Opinion: Why President-elect Trump may not be able to gut the EPA

By Sarah Anderson

Published: Nov 23, 2016 4:17 p.m. ET

MarketWatch.com

During the Republican primary debates, President-elect Trump threatened to gut the Environmental Protection Agency, saying: “We are going to get rid of it in almost every form. We’re going to have little tidbits left but we’re going to take a tremendous amount out.”

History suggests that it may be harder to make radical cuts at EPA than Trump and his advisers think. While many politicians have called for eliminating entire cabinet agencies, none has succeeded.

Such efforts run into two empirical realities. First, government departments are rarely eliminated. Second, in my research I have found that, paradoxically, over the past six decades Democrats have been more likely to enact big cuts to programs than Republicans. Furthermore, while climate change programs may be an easy target, other presidents have found that voters like clean air and water and don't support gutting the agency whose job it is to protect them.

When I was a graduate student researcher updating a budget database, I was puzzled when I searched the 623 pages of the fiscal year 1983 budget for the budget of the Department of Education and couldn't find it. There simply wasn't an entry for the Department of Education because President Reagan had proposed to abolish it. Yet the budget for the Education Department increased in seven out of Reagan's eight years as president, and it is still here today (Trump has also called for eliminating it).

Proposals to eliminate agencies have become pro forma for Republican politicians, recently including Ron Paul, Newt Gingrich and Ted Cruz. But these proposals rarely come to fruition.

Most instances in which agencies were eliminated over the past 20 years were either reorganizations — for example, merging 22 agencies to create the

Department of Homeland Security in 2002 — or involved small, obsolete agencies like the Board of Tea Examiners, which was closed in 1996. When Republicans proposed cutting government after winning control of Congress in the 1994 elections, one of the few agencies that was actually closed was the Office of Technology Assessment, a small agency that provided technical and policy research to Congress itself.

Through this period, a surprising trend stands out. When Laurel Harbridge and I analyzed spending on more than 1,500 subaccounts in the federal budget from 1956 through 2003, we found that more large cuts to these accounts occurred when Democrats controlled two or three lawmaking institutions of government (House, Senate, and presidency) than when they controlled only one. (One limitation of our analysis was that we didn't have data for periods when Republicans controlled all three branches.)

Why would Democrats, who traditionally support a more expansive role for government, make more large cuts in federal spending than Republicans? In social psychologist Dan Kahn's words, "individuals ... fit their processing of information to conclusions that suit some end or goal." So we expect Democrats to make lots of small increases to programs.

But after making all those changes, the party must make corrections to balance its prior decisions. And when parties ignore information that runs counter to their ideology, they end up having to make big corrections. So we'd expect Democrats to occasionally make large cuts to programs.

Denmark urged to clean up US military waste in Greenland

By Jan M. Olsen, Associated Press

Updated 1:49 pm, Saturday, November 26, 2016

NY Times

COPENHAGEN, Denmark (AP) — Greenland is calling on Denmark to clean up an abandoned under-ice missile project and other U.S. military installations left to rust in the pristine landscape after the Cold War.

The 1951 deal under which NATO member Denmark allowed the U.S. to build 33 bases and radar stations in the former Danish province doesn't specify who's responsible for any cleanup.

Tired of waiting, Greenland's local leaders are now urging Denmark to remove the junk that the Americans left behind, including Camp Century, a never-completed launch site for nuclear missiles under the surface of the massive ice cap.

"Unless Denmark has entered other agreements with the United States about Camp Century, the responsibility for investigation and cleanup lies with Denmark alone," said Vittus Qujaukitsoq, Greenland's minister in charge of foreign affairs.

Camp Century was built in 1959-60 in northwestern Greenland, officially to test sub-ice construction techniques. The real plan was top secret: creating a hidden launch site for ballistic missiles that could reach the Soviet Union.

In shift, Trump says humans may be causing global warming

The project was abandoned in 1966 because the ice cap began to crush the camp. The U.S. removed a portable nuclear reactor that had supplied heat and electricity, but left an estimated 200,000 liters of diesel oil and sewage, according to an international study published in August.

Scientists are warning that as global warming melts the ice cap, the waste could surface and pollute the environment.

In an Oct. 24 letter to Danish Foreign Minister Kristian Jensen, obtained by The Associated Press, Qujaukitsoq asked about Denmark's plans for Camp Century, adding that an international study said the waste includes "radioactivity, oil and PCB pollution."

PCBs stands for polychlorinated biphenyls, a man-made chemical once widely used in paints, plastics and other products, but were banned after they were demonstrated to cause cancer and other ailments.

At a meeting on Nov. 17 in Nuuk, the Greenland capital, to discuss the issue, Jensen said Denmark's Environment Ministry was investigating the environmental risks.

"I hope it can be done as quickly as possible," he told a news conference, declining to give any specifics.

Jensen later told The Associated Press in an email that "it is still too early to say who will be involved in a possible cleanup."

The U.S. military was interested in Greenland during the Cold War due to its strategic location in the Arctic. Under the 1951 agreement, the U.S. also built four radar stations as part of an early warning system to detect incoming Soviet bombers.

The U.S. Air Force still uses the Thule Air Base, about 1,200 kilometers (745 miles) below the North Pole. Military airfields in Narsarsuaq, Kulusuk and Kangerlussuaq have become civilian airports.

Several other military installations have been abandoned, some in remote areas, in the hope they would be entombed forever in the thick ice cap that covers most of the vast island.

Local authorities have started clearing some of the sites, but don't have sufficient resources, said Rasmus Eisted of Danish engineering company Ramboll, which has been involved in some cleanup projects.

Eisted singled out a junkyard in Kangerlussuaq containing miscellaneous military equipment from the time it was a U.S. Air Force Base known as Sondrestrom. The continuing cleanup task was larger than first anticipated, he said.

Aleqa Hammond, a former Greenland premier who now represents the mostly Inuit population of the Arctic island in the Danish Parliament, said Greenland could bring Denmark before a U.N. panel on indigenous issues unless it deals with the junk.

"Denmark is responsible for cleaning up after the Americans," Hammond told AP. "I see a potential political crisis between Greenland and Denmark."

Editorial: Donald Trump's administration doesn't need to choose between economy and environment

Updated November 26, 2016 5:58 AM

By The Editorial Board

Newsday

THE BOTTOM LINE: We've made real progress on climate change. We can't turn back now.

For anyone concerned about the environment, Donald Trump has loomed like a mythic destroyer.

The president-elect has called climate change a hoax; wants to "unleash" the nation's oil, gas and coal reserves as the country moves surely to renewable energy like wind and solar; and promises to gut years of regulations that are, among other things, forcing power plants to reduce emissions.

There are reasons for grave concern. There also are reasons to believe that in some cases, Trump's bark might turn out to be worse than his bite.

Inevitable court challenges and intense public pushback could curtail some of his efforts. Bipartisan congressional opposition to, for example, ending wind and solar tax credits could derail others. And his misunderstanding of what's really pushing the greening of America could mean that deregulation does little to slow market forces leading the way.

Another factor is Trump's willingness to walk back his own views. After staking out a clear position as a candidate, he told The New York Times last week that he has "an open mind" about withdrawing from the Paris climate change agreement, and that there is "some connectivity" between human activity and climate change.

The issues at stake are especially important on Long Island. Our region is on the front line of climate change, threatened by rising sea levels. So states such as New York must continue to lead with sustained efforts to increase alternative energy sources and reduce greenhouse gas emissions.

Trump and his allies in Congress say the choice is between boosting the economy and protecting the environment. It isn't. We can help both. And we must.

Here are some areas of contention:

Climate change

Pulling out of the Paris agreement, the accord reached last year in which 195 nations agreed to reduce greenhouse gas emissions, would take about four years because of conditions in the pact. But Trump could try to withdraw from the underlying agreement, signed by President George H.W. Bush and ratified by Congress, which set the framework for climate negotiations. That could take a year and might need congressional approval.

But international climate negotiators are talking about punishing a U.S. withdrawal by taxing American exports based on the carbon pollution created in making them. That could start a trade war. The Trump administration also could find that negotiations with countries whose help we need on other issues would become more difficult. And the public outcry, especially among millennials, would be fierce.

Coal

Trump's claim that lifting restrictions on coal would help produce millions of jobs is contradicted by reality. Demand for coal has been declining for decades. Fracking has made natural gas cheaper and more plentiful, and coal plants have shed jobs through mechanization. In eight years, the share of American electricity produced by coal has dropped from 50 percent to about 30 percent. Trump probably could lift Obama's moratorium on new coal leases on federal lands, but miners there already have a glut of coal and aren't clamoring for more leases.

Regulations

This might be the most worrisome area in terms of real potential for environmental harm. Congress has been trying to roll back key environmental standards for years.

Changes could include lifting restrictions on power plant emissions, revising standards for fuel efficiency and pollution for cars and trucks, removing protections from many water bodies, and inhibiting the ability of the Environmental Protection Agency to enforce regulations by cutting its funding. One bill would allow new clean air standards, currently determined only by the science of how much smog and soot are safe to breathe, to be blocked if the cost of complying with them is deemed to be too high.

Environmentalists hope the Senate will be a firewall because it takes 60 votes to end a legislation-blocking filibuster, and Republicans will have at most 52 seats. But

the GOP can act via the budget reconciliation process, which requires only 51 votes. Even then, repealing and rewriting regulations require a public comment period, and often result in long legal battles.

The nation has made real progress that's been good for the economy, the health of its people and the survival of Earth. Vehicles use less gasoline and emit less pollution, power plants have reduced greenhouse gas and mercury emissions, and many states are meeting benchmarks for reduced emissions ahead of schedule.

We cannot turn back from that now.

Trump Faces Dilemma as U.S. Oil Reels From Record Biofuels Targets

By REUTERS

NOV. 28, 2016, 1:33 A.M. E.S.T.

NY Times

NEW YORK — The Obama administration signed its final plan for renewable fuel use in the United States last week, leaving an oil industry reeling from the most aggressive biofuel targets yet as President-elect Donald Trump takes over.

The Renewable Fuel Standard (RFS) program, signed into law by President George W. Bush, is one of the country's most controversial energy policies. It requires energy firms to blend ethanol and biodiesel into gasoline and diesel.

The policy was designed to cut greenhouse gas emissions, reduce U.S. reliance on oil imports and boost rural economies that provide the crops for biofuels.

It has pitted two of Trump's support bases against each other: Big Oil and Big Corn. The farming sector has lobbied hard for the maximum biofuel volumes laid out in

the law to be blended into gasoline motor fuels, while the oil industry argues that the program creates additional costs.

Balancing oil and farm interests is likely to prove a challenge for Trump, who has promised to curtail regulations on the oil industry but is already being reminded by biofuels advocates of the importance of the program to the American Midwest, where he received strong support from voters on Nov. 8.

Oil groups are renewing their calls to change or repeal the program following Wednesday's announcement, when the Environmental Protection Agency (EPA) set record mandates for renewable fuels - for the first time hitting levels targeted by Congress nearly a decade ago..

The EPA plan is "completely detached from market realities and confirms once again that Congress must take immediate action to remedy this broken program," said Chet Thompson, President of the American Fuel and Petrochemical Manufacturers, in a statement.

It is unclear what Trump's plans for the program will be and his transition team did not respond to Reuters' requests for comment.

Both camps are expecting an administration receptive to their demands, though both have expressed concern and uncertainty over Trump's plans for the program, according to experts, industry and political sources.

The installation of climate change skeptic Myron Ebell as head of the transition at the EPA bolstered oil industry confidence Trump will swing their way. In September, Trump appeared to briefly echo the views of his supporter, billionaire Carl Icahn, who expressed concern about the program.

Icahn, who owns a stake in an oil refiner, renewed those criticisms last week, saying the ethanol credit market generated by the program is susceptible to manipulation and harming independent refiners.

PRO-ETHANOL CAMPAIGNING

The president-elect campaigned on a pro-ethanol platform when he visited America's farm states and biofuels advocates expect he will keep the RFS strong, maintaining annual targets at the minimum set forth by Congress.

"Mr. Trump will not turn his back on the American heartland, we believe in him," said Annette Sweeney, a former state representative from Iowa who was a member of the Trump's agricultural advisory committee during his candidacy.

"To a certain extent, we are on higher ground. You always want to be on higher ground," said Bob Dinneen, head of the Renewable Fuels Association, referring to the increase.

"We'll be able to demonstrate the marketplace can absorb 15 billion gallons of ethanol. We can put this all behind us. As we look to 2018... there's no reason to go back," he said.

The renewables industries have already started to emphasize their place among American-made fuels, something experts expect will appeal to Trump.

"There are a lot of good things to be said about second-generation fuels, even from the new administration's perspective," said Harvard University professor and former Obama administration advisor James Stock.

"All the new administration needs to do is embrace the original ... vision of the RFS," he said.

OPINION: B.L. England repowering is dirty deal of Christie administration

Jeff Tittel

Nov 26, 2016

Atlantic City Press

The B.L. England plant was supposed to close in 2007 but because of political games and manipulations it has been allowed to stay open. This plant, even if it's repowered, will be largest source of air pollution in South Jersey. The repowering plan means more greenhouse gasses and pollution than the plant's current operations. The Christie administration, in order to repower the plant with natural gas, rammed through the South Jersey Gas pipeline. The state Appellate Court ruled against this ploy.

Despite the fact that it is unneeded, the Christie administration is trying to push through the South Jersey Gas pipeline to keep the B.L. England power plant open longer. The Sierra Club sued the EPA to require that the Christie administration close or clean-up the plant in 2007, because it could not meet Clean Air Act standards. Since, there has been 20,000 megawatts of electricity added to the PJM grid in the last four years, which is 50 times this plant. At the same time, the area has seen a decline in growth, there is a power plant sitting empty in Atlantic City, and the grid operator has already been modeling for the plant's closure. By keeping this plant open, this is clearly a dirty deal so Gov. Chris Christie can take care of his buddies at South Jersey Gas.

Instead of protecting the environment, the Christie administration has allowed the plant to be re-powered, instead of re-built so it doesn't have to be as clean. The new air permit for B.L. England allows the plant to increase operations by 24/7, 365 days per year and increase pollution by a factor of five. Natural gas has 30 percent less carbon than coal when burned, but has more methane released. Methane is 87 times more potent than carbon dioxide as a greenhouse gas. If you look at leakage of methane from pipelines and drilling, natural gas has about the same emissions as coal, overall.

Based on actual data from the plant, in 2014, B.L. England emitted 87 tons of carbon dioxide, 534 tons of NOx, and 288 tons of SOx per year. This permit would increase the carbon dioxide footprint to 1,706,305, 5,533.8 tons of NOx and 8,046 SOx. It will even allow emissions from fine particulates and even release 129,000 pounds of lead, 35,800 pounds of arsenic, 10,360 pounds of cadmium, and 99,000 pounds of chromium per year. By increasing emissions and toxic chemicals, ultra-fine particulate pollution will be a threat to public health.

Not only is this plant a huge contributor to air pollution, it is exempt from cooling towers. As a result, this plant takes millions of gallons of clean water out of the Great Egg Harbor Bay each day. When it discharges heated water, it causes millions of fish kills, algae blooms and water quality problems. The DEP permit for this plant will allow it to keep polluting the same way for the next five years.

The administration tried to use this power plant as justification for the pipeline. However, this pipeline violates the Comprehensive Management Plan because both projects go through the Forest Preservation Area, where such development is prohibited without benefiting the people living in the Pinelands. By serving a power plant outside the Pinelands, whose gas will go into the grid, this pipeline clearly goes against laws in place to protect the Pinelands.

The Pinelands is a United Nations Biosphere Reserve recognized for its biodiversity and holds 17 trillion gallons of clean drinking water in its aquifer. The South Jersey Gas pipeline would cut an ugly scar through the most environmentally sensitive area of the Pinelands, destroy open space, threaten biodiversity, and risk our water supply. All of this destruction is unnecessary given that the B.L. England is unneeded and could be used instead as a port for offshore wind.

Offshore wind not only creates jobs in installing, operating and maintaining wind turbines, but includes manufacturing wind turbines. This site would be a great place for new factories, manufacturing the steel for the turbines, and assembling and transporting the windmills. Offshore wind can provide a third of energy needs and provide 3,500 megawatts worth of energy by 2020. If we had that energy supply, we could easily retire B.L. England. The plant's lawyer was involved in the Bridgegate incident. Everything about this plant, and the pipeline, is a scandal.

Jeff Tittel, of Lambertville, Hunterdon County, is director of the New Jersey Sierra Club.

Where Marijuana Plants Flourish Under Energy-Saving LED Lights

By DIANE CARDWELL

NOV. 25, 2016

NY Times

TUMWATER, Wash. — Behind the covered windows of a nondescript two-story building near the Olympia Regional Airport, hundreds of marijuana plants were flowering recently in the purple haze of 40 LED lights.

It was part of a high-stakes experiment in energy conservation — an undertaking subsidized by the local electric company. With cannabis cultivation poised to become a big business in some parts of the country, power companies and government officials hope it will grow into a green industry.

The plants here, destined for sale in the form of dried flowers, joints or edible items, were just a few weeks from harvest and exuding the potent aroma of a stash room for the Grateful Dead. But the energy-efficient LED lights were the focus of attention.

“We wanted to find a way to save energy — that was important to us,” said Rodger Rutter, a retired airline pilot who started this indoor pot-farming business, Evergrow Northwest, after Washington State legalized recreational cannabis in 2012.

[Continue reading the main story](#)

“We wanted to be able to offer the best product at the best price,” Mr. Rutter said, “and a big part of the cost is energy.”

As cannabis has increasingly gone legitimate — about two dozen states had already legalized it in some form before several others eased restrictions on Election Day — electric utilities have struggled to cope with the intensive energy demands of the proliferating industry.

Besides blown transformers and blackouts for utilities in some places, the ascent of Cannabis Inc. has also raised clean-air concerns in parts of the country where fossil fuels are still the main source of electric power.

Even in many places where growing marijuana is legal, cultivators are required to keep their crops out of public view. And in any case, many growers prefer having the ability to control the environment by raising the plants indoors.

Traditionally, indoor producers — formerly relegated to basements, garages and shadowy warehouses — relied on hot, high-intensity lights. When air-conditioning and ventilation were included, the energy used to grow a single marijuana plant would run seven refrigerators for the same period, according to one estimate.

But under an incentive program with the local utility here, Evergrow was able to install more than 100 sophisticated LED grow lights, hoping to reduce costs without sacrificing quality or yield. The utility, Puget Sound Energy, which gets about a third of its electricity from hydropower and most of the rest from coal and natural gas, offers grants to help customers offset the cost of energy-efficiency upgrades.

Marijuana growers have traditionally used high-pressure sodium lights. Credit Ian C. Bates for The New York Times

Although the LED lights are more expensive up front — they can run \$1,600 each, as opposed to \$350 for the high-pressure sodium lights traditionally used — their lower electricity requirements mean they can save money in the long run.

It is not just that the LED lights take so much less energy to operate. They also run cooler, requiring less air-conditioning.

“It’s a snowball effect,” Mr. Rutter said, surrounded by dozens of specimens with names like Lodi Dodi and Secret Recipe. “You just don’t suck up as much energy.”

Utilities elsewhere have felt the energy impact of liberalized marijuana laws.

For example, Pacific Power, based in Portland, Ore., traced some neighborhood power outages to clusters of residential customers who were taking advantage of state laws allowing up to four marijuana plants per household for personal use.

In Denver, home to one of the largest and most advanced cannabis industries, demand for energy and water ran high enough that the city’s Department of Environmental Health convened a working group to develop recommendations to help make the businesses more sustainable.

The cultivation and sale of marijuana, though permitted under a patchwork of state laws, are still federal crimes. That has made it a challenge for utilities to work closely with growers and led to tensions with federal law enforcement agencies.

As a result, many electric utilities have been reluctant to offer incentives or rebates to cannabis growers for energy-efficiency upgrades. That has been particularly true in the Pacific Northwest, because many of the region’s energy discount programs are financed by the Bonneville Power Administration, a federal nonprofit marketer of electricity whose rules prohibit subsidizing cannabis operations.

Portland General Electric, for instance, had to set up a separate billing system for home-grow operations to keep them separate from Bonneville.

Evergrow’s utility, Puget Sound Energy, is not a Bonneville customer, said Dave Montgomery, who leads the utility’s business energy management group. “It is legal

here,” he said of marijuana farming, “and we’re obligated to provide them the same services we would with anybody else.”

Using its own energy-efficiency programs for new enterprises has helped Puget Sound Energy avoid the overloaded transformers that resulted when cannabis cultivation was first catching on, Mr. Montgomery said.

And yet growers, many with experience in illicit operations, have often resisted LEDs, preferring to follow their own tried-and-true methods. Many say that earlier versions of LEDs simply did not perform as well as the high-pressure sodium or metal halide lamps that growers favored, especially when the plants began producing flowers, the valued part of the yield.

LED lights at Evergrow, which use less energy than high-pressure sodium lights and run cooler, requiring less air-conditioning. Credit Ian C. Bates for The New York Times

But as horticultural lighting companies like Heliospectra and P. L. Light Systems have turned their focus to the cannabis market with more sophisticated LEDs, interest has picked up. Lighting Science, which makes the VividGro lights that Evergrow uses, doubled sales of that line this year, the company recently announced.

The newer products are able to generate not only the light intensity but also the color spectrum the plants need to thrive, without wasting energy on unnecessary parts of the spectrum.

For cannabis, that means growers might use lights that appear white but have more blue for seedlings, and then shift to lighting with more intensity and more red as they mature. Later, shortening the amount of time the plants spend under illumination each day, which mimics how daylight diminishes as the seasons change, triggers flowering.

At Evergrow, the company cultivates most of its plants under LEDs, but keeps one space, known as the energy-suck room, illuminated by high-pressure sodium lights as a kind of experimental control.

The plants in that room, which was hovering around 88 degrees during a recent visit despite 16 fans helping to circulate cold air both from outside and from an overhead air-conditioning vent, produce slightly more flowers but with somewhat less potency.

“It takes a lot of energy to keep this room functioning,” said Mr. Rutter, wearing a T-shirt and jeans under the bright yellow glare, his forehead glistening as he gazed across plants lush with distinctive, hand-shaped leaves and fuzzy, bud-laden flower stalks.

Mr. Rutter estimates that the energy-suck room accounts for more than half of his roughly \$5,000 monthly electric bill, though it contains only about one-quarter of the building’s grow lights. Mr. Rutter said that with the utility’s rebates, he ended up paying about \$72,000 for the LED lights, which would normally cost around \$162,000.

For Mr. Rutter, 62, the new business was a way to keep busy when he decided to retire from flying for Frontier Airlines. He said he had smoked marijuana in college but had long since given it up.

Mr. Rutter started Evergrow with his 26-year-old son, Adam, who began growing plants at home as a teenager. Although he did not entirely approve of Adam’s using the drug, Mr. Rutter condoned his son’s green-thumb efforts.

“He really had a passion for it,” Mr. Rutter said. “I saw that it was something he was good at. For a time it was awkward, but then this came along.”

Now that cannabis growing is legal, Mr. Rutter said, the stigma has dissipated, and

the company's sales keep increasing. Through October, the company reported \$513,880 in sales for this year, more than double what it sold in all of 2015.

"We can't grow it fast enough," he said with a chuckle as a group of employees quickly filled and sealed plastic packages of joints and tossed them into a bin. "We'd like to figure out a way to get the plants on steroids."

Water Hub to address harmful algal blooms

11/26/2016

Post-Standard, The

The state Department of Environmental Conservation last month announced two major developments in regard to safeguarding the water quality of the Finger Lakes, starting with Owasco Lake.

The DEC announced the establishment of a "Finger Lakes Water Hub," a multi-regional watershed team to address Finger Lake water quality issues. In addition, the state agency made good on a year-long promise to deliver \$600,000 to "study algae blooms and undertake pollution reduction projects in the Owasco Lake watershed."

The announcements were greeted with enthusiasm by local officials, but recent developments on the Owasco Lake front indicate not everyone is in agreement how to proceed.

The lake is the drinking water source for the city and surrounding communities and the severity of blue-green algal blooms on the lake this past fall (which was warmer temperature-wise than usual) has been a cause for concern. In addition, toxins generated from the breakdown of the blue green algae made their way through the city's water filtration plants and into the drinking water of about 45,000 Cayuga County residents.

The presence of the toxins in the drinking water alarmed some, but they were at levels acceptable by federal Environmental Protection Agency standards and no resulting health problems were reported. City staff is working to fine tune the city's filtering process to prevent this from happening again.

As recently as last week, DEC and local officials voiced disagreements on just what exactly is behind the Owasco Lake blue algal blooms. The blooms reached their intensity in late September and early October at several locations around the lake, but mostly at the northern end. At no time during the summer, though, did they result in closure of the swimming area at Emerson Park.

DEC staffers Matt Kazmierski and William Lints, attended last week's Cayuga County Water Quality Management Agency meeting. "According to the EPA, phosphorus in the water is the main cause of harmful algae blooms. But Owasco Lake's phosphorus levels have been below the DEC's threshold," the men said at the meeting, according to The Citizen newspaper.

But where is the phosphorus coming from? Some point to malfunctioning septic systems, or fertilizers from residential yards and pet wastes leaching into the lake. Big culprits, say others, are fertilizer and manure from huge dairy farms in the Owasco Lake watershed getting into the lake as a result of erosion and runoff.

Lints said the huge farms, called CAFOs (Contained Animal Feeding Operations) have special permits from the DEC and have been more in compliance the past few years than more than a decade ago. Nevertheless, nutrient and harmful algal blooms are increasing on the lake, officials at the meeting said.

"So, while we'd like to say maybe it is and that's happening, we just can't because it's not," The Citizen reported Lints saying. "It's not. Obviously with the announcement of the Finger Lakes Hub, one of those duties of the hub is to really find out why in the last four years we did see this increase."

Bob Brower, director of the Owasco Lake Watershed, expressed doubts that even if

the farms are following the DEC's rules and regulations that there is no requirement to test water quality near those farms to ensure those regulations are actually working, The Citizen reported.

Some of the projects the state's \$600,000 will pay for include phosphorous reduction practices for agriculture and stormwater projects; monitoring Owasco Lake and its tributaries to find out sources of contamination, analysis of harmful algae blooms and food web monitoring, open water buoy deployment and maintenance and funding for continued septic sampling on resident's properties around the lake.

Bruce Natalie, environmental engineer for the county, said this week the county is "about to hire consultant to oversee the project," and that county staffers have already started taking samples to help fill in "gaps in knowledge and data."

He expressed dismay with Lints' and Kazmierski's comments - particularly that there appeared to be "no correlation" between practices of the farms and the increase of phosphorus and the algal blooms in the lake. "They seem to have forgotten the huge manure spills that found their way into the lake during February and March in 2014," he said.

Natalie commented on those who feel malfunctioning septic systems are the cause. He said residents along the northern end of the lake, where the blooms have been concentrated, are on public sewer lines.

Meanwhile, the Finger Lakes Water Hub will be overseen by the DEC.

"Dozens of New York Lakes, as well as waterbodies nationwide, are plagued with harmful algae blooms. As we continue the strong efforts of the Governor's Water Quality Rapid Response Team, the work of the Finger Lakes Water Hub and the state's investments to study algae blooms will be valuable resources in helping New Yorkers understand and mitigate this emerging issue," said DEC Commissioner Basil Seggos.

The Hub, according to the DEC, will be comprised of scientists and policy makers "who will leverage the state's ongoing efforts to safeguard water quality with the expertise of research partners such as the Finger Lakes Institute at Hobart and William Smith Colleges, SUNY ESF and the Upstate Freshwater Institute."

New York's Finger Lakes Region is a 9,000-mile area home to 11 lakes. They include Otisco, Skaneateles, Owasco, Cayuga, Seneca, Keuka, Canandaigua, Honeoye, Canadice, Hemlock and Conesus lakes.

Opinion: The Tax Man Demands a Rain Check—Er . . . Stormwater Fee: An EPA mandate to reduce runoff is inspiring a new levy on precipitation in my Virginia town.

By Stephen Ford

Nov. 25, 2016 5:07 p.m. ET

Wall St. Journal

Alexandria, Va.

When it rains, it pours—and where I live, stormy weather will soon be subject to a new tax. Such is life in a deep-blue Washington suburb that's trying to comply with a mandate from the Environmental Protection Agency.

Six years ago, the EPA issued a regulation forcing D.C. and the states in the Chesapeake Bay watershed to control the quality of their rainfall runoff. Alexandria's solution is to implement a new "stormwater management fee" to fund green pet projects like rooftop gardens on municipal buildings and permeable pavement in parks.

Maryland tried a similar approach under Gov. Martin O'Malley, a Democrat, in 2012. The state law required nine counties and Baltimore to levy a fee on every

property owner in their jurisdiction. But the “rain tax,” as it came to be known, was a point of public anger—and mockery. Republican gubernatorial candidate Larry Hogan made its repeal central to his 2014 campaign, and he fulfilled his promise by devolving the mandate down to local jurisdictions.

Virginia’s system is roughly the same. It allows counties and independent cities like Alexandria to decide for themselves how to best comply by minimizing or treating runoff. But higher taxes seem to be what politicians are most eager to entertain.

That’s certainly the case in Alexandria. Last month residents received an email inviting them to a public meeting with the city’s Environmental Policy Commission, which would detail its proposal to meet the runoff mandate. My interest was piqued by a line suggesting that the city had decided not to “raise taxes or cut spending” but would instead pursue a “fee” on residents.

On the night of the meeting, several people—a mix of citizens, environmental activists and state and federal bureaucrats—crowded into the small conference room to watch a slideshow and ask questions. From the start, the committee described the new levy as a matter of fairness, that great progressive principle.

Currently, 70% of the money that the city is spending to comply with the mandate comes from the general fund, with the rest coming from property taxes. According to the city’s math, this means residential properties—including homeowners like me—pay about 58% of the total cost, although we contribute only 37% of the rainfall runoff.

The committee’s solution is a fee based on the percentage of a property’s land that is covered with non-permeable surfaces—meaning it contributes to runoff. That way all parties would pay “their fair share.” Commercial properties that contribute 63% of the runoff would pay 63% of the new fee. Homeowners would pay about \$145 a year for a typical single-family dwelling, according to the city. That might seem low, but local taxes and fees add up quickly.

There are also a number of fictions hiding under the surface. Most glaring is the

claim that the fee isn't a tax. This is a distinction without a difference—especially since the fee will be assessed annually with property taxes.

Nor does the facade of “fairness” hold up. Alexandrians might assume that the new fee will replace the existing taxes they pay toward complying with the mandate. It won't. When pressed by several attendees, city officials conceded that the fee will exist on top of the old revenue stream. The committee tried to deflect criticism by saying that the city council could decide to return that money to taxpayers later.

This elicited a few disbelieving laughs. The man seated next to me asked a pointed question: Had Alexandria ever passed a tax cut or refund in conjunction with a new fee? The city official couldn't think of an example—hardly a shock in a town as blue as mine.

Naturally, the rain tax will increase over time. One slide, which the committee sped by, indicated that the fee is expected to rise by 32% in its first four years. When one attendee pointed this out, another ruefully shook her head and mumbled, “That's how it always goes.” After four years the city provides no projections, but the fee will probably keep on rising.

One official expressed hope that the rate would level off after a few years, but he also said the city's environmental projects will only require more capital over time. Although the updates to the city's infrastructure are supposed to be completed in 10 years, the fee will doubtless outlast it.

Judging by the meeting, it's unlikely that my fellow Alexandrians will respond the way voters did in Maryland. The general mood was one of approval, even excitement. One aging hippie could hardly contain his glee; another resident thought the tax didn't go far enough. By my count, only three people, including me, seemed opposed.

Before we broke for the evening, the Environmental Policy Committee reminded us that the rain-tax proposal was still subject to change. Lowering or eliminating the storm-water fee for churches, which will average \$2,000 in the first year, was

mentioned. But the City Council—composed entirely of Democrats—is all but guaranteed to include some version in its 2018 budget. Here's hoping it rains the day they vote.

Mr. Ford is a writer in Virginia.

New York energy czar has large fossil-fuel holdings

Updated November 27, 2016 8:03 PM

By Mark Harrington mark.harrington@newsday.com □

NewsDay

New York State's energy and finance czar, Richard Kauffman, champions the state's aggressive move into renewable energy, but his private investment portfolio contains sizable holdings in fossil-fuel based companies, including several with business before the state.

A Newsday review of his 2015 financial disclosure statement filed May 13 shows that Kauffman, chairman since 2013 of the New York State Energy Research and Development Authority, where he draws a \$157,595 annual salary, has 19 direct stock and investment partnerships in such energy companies.

They include three that are registered to lobby the administration of Gov. Andrew M. Cuomo and other state agencies and a Danish energy company that led Kauffman to recuse himself from further meetings or decisions relating to its wind-energy plans, the analysis shows.

Kauffman and his wife's fossil-fuel investments are valued at as much as \$3 million, according to the financial statement. They include holdings in Phillips 66, Chevron, Valero and Sunoco Logistics and some of the largest crude-oil and natural gas exploration, refining, pipeline and storage companies in the country, according to the disclosure. At least one company, Denver-based Antero Midstream Partners,

supplies water systems and other services for hydrofracking, a natural-gas extraction process banned in New York.

Kauffman's portfolio of fossil-fuel holdings could complicate his role as New York's chief strategist and promoter of the state's conversion to renewable energy sources, two Long Island state assemblymen said.

"I'm flabbergasted," said Assemb. Steve Englebright (D-Setauket), who chairs the assembly environmental conservation committee. "It does sound contradictory to the stated purpose of this administration to dramatically scale back the state's carbon footprint. I can only say that it certainly looks peculiar and problematic."

The energy research and development authority said Kauffman has not played any role in state issues involving the fossil-fuel companies with interests in the state. His investments in those companies did not require that he recuse himself because he is not actively involved in state dealings with them.

"To recuse or distance himself from New York State dealings and other matters where he never had a role and has no investments is wholly unnecessary," the agency said in a statement.

More broadly, the authority said Kauffman's investments are managed by Goldman Sachs and that he has been minimally involved in investment decisions. The agency said Kauffman has made "only two significant investments on his own": In Clean Feet Investors, a "socially responsible investment" fund, and Generation Investment, an investment management partnership chaired by former U.S. Vice President Al Gore.

However, Assemb. Fred Thiele (I-Sag Harbor) said Kauffman's holdings create "a situation where the public will wonder whether or not he is promoting the interest of the public or his own economic interests. He has a fiduciary role in his job as a public official. When you have that responsibility you cannot serve two masters."

The energy research and development authority said Kauffman recused himself this summer from meetings and decisions with Danish-energy giant Dong Energy because of his holdings in a Goldman Sachs subsidiary, Danish Energy Investors, that controls about 14 percent of Dong.

That removed Kauffman, a former partner at Goldman Sachs who chaired the firm's Global Financing Group, from contact with the world's largest wind-energy developer just as New York State, and the authority specifically, move to launch a multipronged initiative for offshore wind energy. Dong and the authority are expected to bid for the wind energy area in mid-December.

As state energy czar, Kauffman manages and oversees New York's "entire energy portfolio," according to the authority, including the state Department of Public Service, the New York Power Authority and the Long Island Power Authority. This summer, the Public Service Commission, which Kauffman also oversees, passed a Clean Energy Standard that seeks to shift 50 percent of the state's energy sources to renewables by 2030.

"Richard Kauffman is the latest example of a thorny problem — when a governor plucks a well-invested and knowledgeable expert to become the policymaker, and such expert stands to profit . . . by such policymaking," said Manhattan attorney Ravi Batra, a former member of the state's Joint Commission on Public Ethics.

Russ Haven, legal affairs counsel for the watchdog New York Public Interest Research Group, said that where even the appearance of a conflict of interest arises, Kauffman should get a ruling from the state ethics commission.

"In that role in government you need to be transparent and make sure the public is 100 percent confident you're acting in its interest," Haven said. "The best thing to do is to have someone independent take a look at it."

Susan Lerner, executive director of Common Cause, a nonprofit watchdog group, said Kauffman should go further.

“The public needs to be assured in some manner that the head of an agency is not financially benefiting from his intimate knowledge of the industry he’s regulating,” Lerner said. In saying that his investments are being managed by Goldman Sachs, Lerner said. “It behooves him to clarify what ‘management’ means.”

The ethics commission, which conducts such reviews, said it couldn’t comment on whether Kauffman has requested such an approval.

As Cuomo’s hand-picked chairman of energy and finance, Kauffman is the most senior and visible official behind the state’s aggressive shift to renewables. Among the projects he is spearheading is the Greenbank, a \$1 billion fund that backs outside investment in New York’s renewable growth.

Kauffman’s wife is Ellen Jewett, a former managing director at BMO Capital Markets who spent more than 20 years at Goldman Sachs specializing in airport infrastructure financing.

Together, their holdings are valued at a total of between \$72 million and \$90 million, according to a Newsday analysis of documents received through a Freedom of Information Law filing. The disclosures report holdings in broad ranges.

The state energy research and development authority said Kauffman divested all direct ownership of Goldman Sachs shares when he worked for the Department of Energy in 2010.

But his most recent disclosure statement still listed up to \$75,000 in Goldman Sachs Group stock owned by his wife. And his investment portfolio, which contains dozens of individual investments in Goldman hedge funds, bonds and partnerships, is managed by Goldman Sachs under a special arrangement by the company for former executives.

In 2013, Goldman Sachs made a \$500 million investment with SolarCity, one of the nation's largest solar-energy companies, to fund "an attractive financing structure to further lower the cost of capital of financing solar," the 2013 announcement from SolarCity said. "The financing can make it easier to fund projects for schools, municipalities and other organizations that are not publicly rated."

New York has invested some \$750 million to fund a "gigafactory" for SolarCity as part of the state's Buffalo Billion initiative, a project to revitalize Western New York that was the center of federal corruption charges filed in September against nine people, including two top state officials. One of them, former Cuomo aide Joseph Percoco, was indicted in the case last Tuesday.

Also, SolarCity is a preferred vendor for the New York Power Authority's K-Solar program, which is expected to bring solar panels to hundreds of schools in the state.

The state energy research and development authority said Kauffman has no dealings with Goldman Sachs

"Mr. Kauffman divested all of his direct stock holdings in Goldman Sachs in 2010 and left the firm over a decade ago," the authority said. "He has had no relationship or communications regarding any of Goldman Sachs' strategic business or management decisions and/or investments made by the firm."

Among the more than 200 funds, bonds, stocks and partnerships listed in his state financial disclosure statement, the Kauffmans own between \$75,000 and \$100,000 in stock in Williams Partners LP, owner of a large network of interstate natural gas pipelines and one of the investors in the Constitution Pipeline company, which is seeking to construct a 125-mile natural gas pipeline in New York.

Williams Companies has hired the politically connected firms Tonio Burgos & Associates and the Elk Street Group to lobby the governor's office, the Public Service Commission and the Department of Environmental Conservation on 16 separate bills, and "issues relating to natural gas pipelines and hydraulic fracturing," according to state lobbying records.

New York has thus far denied the permits Constitution needs for the pipeline project. In April, the state Department of Environmental Conservation denied a water quality permit for the pipeline because the application lacked adequate information about whether the project would meet water quality standards.

The energy research and development authority said Kauffman has “no interaction” with any of the gas and oil companies in which he is invested with the exception of a meeting he had with Williams Partners and Tonio Burgos in March 2014 about the Constitution pipeline and other issues.

The authority noted there were two other people in the meeting, that Kauffman has met with “hundreds of companies” in his role as chairman and that he has “no siting authority” for the pipeline.

As previously reported in Newsday, Kauffman’s portfolio also contains a stake of up \$500,000 in a Goldman Sachs subsidiary known as Danish Energy Investors, a Cayman Islands registered company with an interest in Danish oil and gas giant Dong Energy. Dong describes itself as the world’s largest wind-energy developer.

Danish Energy Investors owns 13.39 percent of Dong Energy and has a seat on Dong’s board but “they are not involved in our day-to-day business,” said Dong spokesman Tom Lehn-Christiansen. Dong is “owned by Goldman Sachs, so please direct those questions to Goldman Sachs.”

Goldman Sachs declined to comment.

The authority said Kauffman “proactively and formally” recused himself from any future meetings with Dong, after the state announced June 2 that the authority would be the state’s lead agency to bid for an 81,000 acre federal wind-energy area south of Long Island.

